

REMARKS

After entry of this Amendment, claims 1-2 and 4-16 will be all the claims pending.

Claim 1 has been amended. Support for the amendment to claim 1 may be found in the specification, e.g., at page 15, lines 26-36 and page 9, beginning at line 6.

Entry of the above amendments is respectfully requested.

I. Claims Rejections - 35 U.S.C. §§ 102, 103

On page 3 of the Office Action, claims 1, 2, 4-8 and 12-16 remain rejected under 35 U.S.C. §102(b) as allegedly anticipated by or, in the alternative, under 35 U.S.C. §103(a) as obvious over Hashiguchi et al. (U.S. Patent Application Publication No. 2002/0180088 A1).

In response, and while not admitting that the rejection is appropriate, claim 1 has been amended to recite that the multi-component polymer-type resin binder (A) has a micro-phase separation structure comprising a resin component constituting the dispersed phase and a resin component constituting the continuous phase. Applicants submit that present claim 1 is patentable over the cited references for the following reasons.

The present invention provides an electroconductive resin composition having a low contact resistance and penetration resistance; a molded product produced therefrom; and a fuel cell separator obtained by molding the composition. *See* page 5, lines 24-33 of the specification. The present invention is characterized by controlling the dispersion of the electroconductive material in the continuous phase (sea) by using a multicomponent polymer-type resin binder having a micro-phase separation (island-in-sea) structure and controlling the size of the dispersed phase (island). *See* page 5, line 34 to page 6, line 1; page 9, lines 6-9; and page 11, lines 21-29. The multi-component polymer-type resin binder, Component (A) of the

present invention, having a microphase separation (island-in-sea) structure is typically obtained by a blend of two or more kinds of polymers, preferably a blend produced by a fusion method, or obtained from a copolymer produced by copolymerizing two or more kinds of polymer chains.

Hashiguchi relates to a process for producing a separator for fuel cells. An aim of Hashiguchi is to produce a fuel cell separator efficiently by reducing the residence time in the compression-molding machine without impairing the quality and functionality of the separator. *See paragraph [0005] of Hashiguchi. It is characterized in that a mixture of a carbonaceous powder and a binder is heated in a heating oven and subsequently introduced into a compression-molding machine and compression-molded therein in order to reduce the residence time in the compression-molding machine, while a mixture of a carbonaceous powder and a binder is heated in a compression-molding machine in the technique heretofore in common use.*

In the Office Action, it is stated that the resin binder having a particle diameter of 1 micron or larger disclosed in Hashiguchi is considered as a dispersed phase and that the organic solvent in which the resin binder is dispersed is considered as a continuous phase. However, Applicants respectfully submit that in the present invention, both a component constituting a dispersed phase and a component constituting a continuous phase are resins, and form a microphase separation (island-in-sea) structure. On the contrary, in Hashiguchi, the dispersed phase is a resin, but the continuous phase is an organic solvent. The particle diameter of 1 micron or larger of the binder disclosed in Hashiguchi corresponds to a shape of a raw material resin powder, but does not mean a dispersed phase of the micro-phase separation (island-in-sea) structure of the present invention. Hashiguchi discloses shapes of a raw material resin powder

and a raw material carbonaceous powder, but does not disclose or suggest shapes of a dispersed phase constituting a resin binder and carbonaceous powder. Therefore, Hashiguchi does not disclose present claim 1, and further claims 2, 4-8 and 12-16 are at least patentable by virtue of their dependency from claim 1.

Withdrawal of the rejection is respectfully requested.

II. Claim Rejections - 35 U.S.C. § 103

On page 5 of the Office Action, claims 9-11 remain rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Hashiguchi in view of Noguchi et al. (U.S. Patent Application Publication No. 2003/0191228 A1).

Applicants respectfully submit that Noguchi does not disclose or suggest the micro-phase separation (island-in-sea) structure of the present invention, and thus does not make up for the deficiencies of Hashiguchi as discussed above in section (I), and therefore the combination of Hashiguchi and Noguchi does not teach each and every element of the present invention.

Withdrawal of the rejection is respectfully requested.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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